

07/28/7031

ABSTRACT OF THE INVENTION

Single stroke text entry via a telephone keypad is subject to ambiguities resulting from the overloading of three letters on one key. After text is entered the three letter per position code block represented by the key strokes for a word position is hashed to all matches in a stored dictionary type word list. The resulting word group of alternative word choices for that word position is subjected to probability analysis. Probabilities of usage of specific words are evaluated based on frequency of usage in the selected language, such as English. Syntax type probabilities of word sequencing are evaluated through (i) rules based on transitional probability of use of two particular words in sequence in English usage and (ii) rules based on probability of relative positioning of words of particular word categories (e.g., nouns and adjectives) in a sentence structure in English usage. A word trellis or lattice represents choice paths for alternative sentence structures. By selecting the path with the highest probability values, highly accurate sentence reconstruction is provided. In addition to use in the telephone keypad text entry context, described systems and methods are also applicable to a variety of word processing and other systems wherein computer stored text is subject to ambiguities as to intended words.